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P#11

1653

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TECH CENTER 1600/2900



1600

## RAW SEQUENCE LISTING

DATE: 04/22/2002

PATENT APPLICATION: US/09/648,692B

TIME: 11:21:00

Input Set : A:\17311SEQLIST1-4-02.TXT  
 Output Set: N:\CRF3\04222002\I648692B.raw

P.6

4 <110> APPLICANT: Dolly, James Oliver  
 5 Li, Yan  
 6 Chan, C.K.  
 7 Aoki, Kei Roger  
 9 <120> TITLE OF INVENTION: Activatable Recombinant Neurotoxins  
 12 <130> FILE REFERENCE: 17311(BO)  
 14 <140> CURRENT APPLICATION NUMBER: 09/648,692B  
 15 <141> CURRENT FILING DATE: 2000-08-25  
 17 <150> PRIOR APPLICATION NUMBER: 60/150,710  
 18 <151> PRIOR FILING DATE: 1999-08-25  
 20 <160> NUMBER OF SEQ ID NOS: 24  
 22 <170> SOFTWARE: FastSEQ for Windows Version 3.0  
 24 <210> SEQ ID NO: 1  
 25 <211> LENGTH: 44  
 26 <212> TYPE: DNA  
 27 <213> ORGANISM: Artificial Sequence  
 29 <220> FEATURE:  
 30 <223> OTHER INFORMATION: PCR primer  
 32 <400> SEQUENCE: 1  
 33 gactgggtgga cagcaagtgc accggaagct ttacgacgat gacg 44  
 35 <210> SEQ ID NO: 2  
 36 <211> LENGTH: 44  
 37 <212> TYPE: DNA  
 38 <213> ORGANISM: Artificial Sequence  
 40 <220> FEATURE:  
 41 <223> OTHER INFORMATION: PCR primer  
 43 <400> SEQUENCE: 2  
 44 cgtcatcggtc gtaaagcttc cggtcgactt gctgtccacc agtc 44  
 46 <210> SEQ ID NO: 3  
 47 <211> LENGTH: 30  
 48 <212> TYPE: DNA  
 49 <213> ORGANISM: Artificial Sequence  
 51 <220> FEATURE:  
 52 <223> OTHER INFORMATION: PCR primer  
 54 <400> SEQUENCE: 3  
 55 aatagatcta gatcataac agattnaggaa 30  
 57 <210> SEQ ID NO: 4  
 58 <211> LENGTH: 27  
 59 <212> TYPE: DNA  
 60 <213> ORGANISM: Artificial Sequence  
 62 <220> FEATURE:  
 63 <223> OTHER INFORMATION: PCR primer  
 65 <400> SEQUENCE: 4

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Input Set : A:\17311SEQLIST1-4-02.TXT  
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66 ttctaaagat ctatacattt gataact 27  
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69 <211> LENGTH: 27  
70 <212> TYPE: DNA  
71 <213> ORGANISM: Artificial Sequence  
73 <220> FEATURE:  
74 <223> OTHER INFORMATION: PCR primer  
76 <400> SEQUENCE: 5  
77 atgtatagat cttagaata tcaagta 27  
79 <210> SEQ ID NO: 6  
80 <211> LENGTH: 45  
81 <212> TYPE: DNA  
82 <213> ORGANISM: Artificial Sequence  
84 <220> FEATURE:  
85 <223> OTHER INFORMATION: PCR primer  
87 <400> SEQUENCE: 6  
88 atcgataagc tttatcagt cgacccaaca atccagattt ttaga 45  
90 <210> SEQ ID NO: 7  
91 <211> LENGTH: 65  
92 <212> TYPE: PRT  
93 <213> ORGANISM: Artificial Sequence  
95 <220> FEATURE:  
96 <223> OTHER INFORMATION: Engineered Intrachain loop region for C. tetani  
97 toxin  
99 <400> SEQUENCE: 7  
100 Ser Lys Leu Ile Gly Leu Cys Lys Lys Ile Ile Pro Pro Thr Asn Ile  
101 1 5 10 15  
102 Arg Glu Asn Leu Tyr Asn Arg Thr Ala Gly Glu Lys Leu Tyr Asp Asp  
103 20 25 30  
104 Asp Asp Lys Asp Arg Trp Gly Ser Ser Arg Ser Leu Thr Asp Leu Gly  
105 35 40 45  
106 Gly Glu Leu Cys Ile Lys Asn Glu Asp Leu Thr Phe Ile Ala Glu Lys  
107 50 55 60  
108 Asn  
109 65  
111 <210> SEQ ID NO: 8  
112 <211> LENGTH: 36  
113 <212> TYPE: DNA  
114 <213> ORGANISM: Artificial Sequence  
116 <220> FEATURE:  
117 <223> OTHER INFORMATION: PCR primer  
119 <400> SEQUENCE: 8  
120 aatagaactg caggagaaaa gctttacgac gatgac 36  
122 <210> SEQ ID NO: 9  
123 <211> LENGTH: 36  
124 <212> TYPE: DNA  
125 <213> ORGANISM: Artificial Sequence  
127 <220> FEATURE:  
128 <223> OTHER INFORMATION: PCR primer

RAW SEQUENCE LISTING  
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Output Set: N:\CRF3\04222002\I648692B.raw

130 <400> SEQUENCE: 9		
131 gtcatcgctcg taaagctttt ctccctgcagt tctatt	36	
133 <210> SEQ ID NO: 10		
134 <211> LENGTH: 4017		
135 <212> TYPE: DNA		
136 <213> ORGANISM: Clostridium botulinum		
138 <400> SEQUENCE: 10		
139 gaattcaagt agtagataat aaaaataatg ccacagattt ttattattaa taatgatata	60	
140 tttatctcta actgtttaac tttaacttat aacaatgtaa atatatattt gctctataaaa	120	
141 aatcaagatt acaattgggt tataatgtat cttaatcatg atataccaaa aaagtcatat	180	
142 ctatggatat taaaaatata ataaaattta aatttaggaga tgctgtatat gccaaaaatt	240	
143 aatagttta attataatga tcctgttaat gatagaacaa ttttataatat taaaccaggc	300	
144 ggttgtcaag aattttataa atcatttaat attatgaaaaa atatttggat aattccagag	360	
145 agaaaatgtaa ttggtaacaac cccccaagat tttcatccgc ctacttcatt aaaaaatggaa	420	
146 gatagtagtt attatgaccc taattatita caaagtatg aagaaaagga tagattttta	480	
147 aaaaatgtca caaaaatatt taatagaata aataataatc tttcagggagg gatttttata	540	
148 gaagaactgt caaaaagctaa tccatattta gggaaatgata atactccaga taatcaattc	600	
149 catattgggt atgcatcagc agttgagatt aaattctcaa atggtagcca agacatacta	660	
150 ttacctaattt ttattataat gggagcagag cctgatttat ttgaaactaa cagttccaaat	720	
151 atttctctaa gaaataatatt tatgccaagc aatcaccggtt ttggatcaat agctatagta	780	
152 acattctcac ctgaatattt ttttagattt aatgataattt gtatgaatga atttatttcaa	840	
153 gatcctgc tcacattat gcatgaatattt atacattcat tacatgact atatggggct	900	
154 aaagggatata ctacaaagta tactataaca caaaaacaaa atcccctaattt aacaaatata	960	
155 agaggtacaa atattgaaga attcttaact tttggaggtt ctgatttaaa cattattact	1020	
156 agtgcctagt ccaatgatata ctataactat cttctagctg attataaaaaa aatagcgtct	1080	
157 aaacttagca aagtacaagt atctaatttca ctacttaatc cttataaaaga tggggggaa	1140	
158 gcaaagtatg gattagataa agatgctagc ggaattttt cggtaaaat aacaaaattt	1200	
159 aatgatattt ttaaaaaattt atacagcttt acgaaattt atttacgaac taaatttcaa	1260	
160 gttaaatgtt ggcaaactt tattggacag tataatataact tcaaacttca aacttggta	1320	
161 aatgatttca tttataatattt atcagaaggc tataatataaa ataatttaaa ggtttttttt	1380	
162 agaggacaga atgcaaattt aaatcctaga atttacac caattacagg tagaggacta	1440	
163 gtaaaaaaaa tcatttagatt ttgtaaaaat attgtttctg taaaaggcat aaggaaatca	1500	
164 atatgtatcg aaataaataa tggtgagtt tttttgtgg cttccgagaa tagttataat	1560	
165 gatgataata taaataactcc taaagaaattt gacgatacag taacttcaaa taataattat	1620	
166 gaaaatgatt tagatcaggt tatttttaat ttaatataactt aatcagcacc tggactttca	1680	
167 gatgaaaat taaatttacat tatccaaaat gatgctata tacccaaaata tgattctaat	1740	
168 ggaacaagtg atatagaaca acatgatgtt aatgaaactt aatgtatttt ctattnagat	1800	
169 gcacagaaag tgcccgagg tggaaataat gtcaatctca cctcttcaat tgatacagca	1860	
170 ttatttagaaac aacccaaaat atatacattt ttttcatcag aatttattaa taatgtcaat	1920	
171 aaacctgtgc aagcagcatt atttgttgc tggatacaac aagtgttagt agattttact	1980	
172 actgaagctt accaaaaaaat tactgttgc taaaatttgcag atatttctat agttgttcca	2040	
173 tatataggtc ttgtttaaa tatagaaat gaagcacaat aaggaaattt taaagatgca	2100	
174 cttgaattat taggagcagg tattttataa gaatttgcac ccgagctttt aatttcttaca	2160	
175 atttttagtat tcacgatataa atctttttt ggttcatctg ataataaaaaa taaagttatt	2220	
176 aaagcaataa ataatgcatt gaaagaaaga gatgaaaaat ggaaagaatg atatagttt	2280	
177 atagtatcga attggatgac taaaatttaat acacaatttta ataaaaagaaa agaacaatg	2340	
178 tatcaagctt tacaaaatca agttaatgcata attaaaacaa taatagaatc taatgtataat	2400	
179 agttataactt tagaggaaaaaa aatgagctt acaaataataat atgatattaa gcaaataagaa	2460	
180 aatgaactta atcaaaaatgtt ttctatagca atgaataataa tagacaggtt cttacttgc	2520	

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Output Set: N:\CRF3\04222002\I648692B.raw

181	agttctatat cctatttaat gaaaataata aatgaagtaa aaattaataa attaagagaa	2580
182	tatgatgaga atgtcaaaac gtattttatg aattatatta tacaacatgg atcaatctt	2640
183	ggagagagtc agcaagaact aaattctatg gtaactgata ccctaaataa tagtattcct	2700
184	ttaagctt cttcttatac agatgataaa atttaattt cataatttaa taaattctt	2760
185	aagagaatta aaagtagttc agtttaat atgagatata aaaatgataa atacgtagat	2820
186	acttcaggat atgattcaaa tataaataatt aatggagatg tatataaata tccaaactaat	2880
187	aaaaatcaat ttgaaatata taatgataaa cttagtgaag ttaatataatc tcaaaatgat	2940
188	tacatttat atgataataa atataaaaat tttagtatta gttttgggt aagaattcct	3000
189	aactatgata ataagatagt aaatgttaat aatgaataca ctataataa ttgtatgaga	3060
190	gataataatt caggatggaa agtatcttt aatcataatg aaataattt gacattcgaa	3120
191	gataatcgag gaattaatca aaaattagca tttaactatg gtaacgaaa tggatttct	3180
192	gattatataa ataagtggat ttttgttaact ataaactatg atagattagg agattctaaa	3240
193	ctttatatta atggaaattt aatagatcaa aaatcaattt taaattttagg taatattcat	3300
194	gttagtgaca atatattatt taaaatagtt aattgttagtt atacaagata tattggatt	3360
195	agatattttt atattttga taaaagaatta gatgaaacag aaattcaaac tttatatacg	3420
196	aatgaaccta atacaaatatt ttgaaggat tttggggaa attatttgct ttatgacaaa	3480
197	gaatactatt tattaaatgt gttaaaacca aataacttta ttgataggag aaaagattct	3540
198	actttaagca ttaataatatt aagaaggactt attcttttag ctaatagatt atatagtgg	3600
199	ataaaaagta aaatacaaag agttaataat agtagtacta acgataatct tggtagaaag	3660
200	aatgatcagg tatataattaa ttgttagcc agcaaaactc acttatttcc attatatgct	3720
201	gatacagcta ccacaaataa agagaaaaca ataaaaat catcatctgg caatagattt	3780
202	aatcaagtat tagttatgaa ttcaagttaga aattgtacaa tgaattttaa aaataataat	3840
203	ggaaaataata ttgggttggt aggttcaag gcagatactg tcgttcttag tacttggat	3900
204	tatacacata tgagagatca tacaacacgc aatggatgtt ttggactt tatttctgaa	3960
205	gaacatggat ggcaagaaaa ataaaaat gattaaacgg ctaaagtcat aaattcc	4017
207	<210> SEQ ID NO: 11	
208	<211> LENGTH: 37	
209	<212> TYPE: DNA	
210	<213> ORGANISM: Artificial Sequence	
212	<220> FEATURE:	
213	<223> OTHER INFORMATION: PCR primer	
215	<400> SEQUENCE: 11	
216	cccgatccc caaaaattaa tagtttaat tataatg	37
218	<210> SEQ ID NO: 12	
219	<211> LENGTH: 36	
220	<212> TYPE: DNA	
221	<213> ORGANISM: PCR primer	
223	<400> SEQUENCE: 12	
224	ccctgcagt cattttctt gccatccatg ttcttc	36
226	<210> SEQ ID NO: 13	
227	<211> LENGTH: 31	
228	<212> TYPE: DNA	
229	<213> ORGANISM: Artificial Sequence	
231	<220> FEATURE:	
232	<223> OTHER INFORMATION: PCR primer	
234	<400> SEQUENCE: 13	
235	cagttaatac attcattaca tggactatat g	31
237	<210> SEQ ID NO: 14	
238	<211> LENGTH: 26	

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239 <212> TYPE: DNA  
240 <213> ORGANISM: Artificial Sequence  
242 <220> FEATURE:  
243 <223> OTHER INFORMATION: PCR primer  
245 <400> SEQUENCE: 14  
246 atgcattaat gtaagagcag gatctt 26  
248 <210> SEQ ID NO: 15  
249 <211> LENGTH: 5  
250 <212> TYPE: PRT  
251 <213> ORGANISM: Unknown  
253 <220> FEATURE:  
254 <223> OTHER INFORMATION: protease cleavage site  
256 <400> SEQUENCE: 15  
257 Asp Asp Asp Asp Lys  
258 1 5  
260 <210> SEQ ID NO: 16  
261 <211> LENGTH: 8  
262 <212> TYPE: PRT  
263 <213> ORGANISM: Unknown  
265 <220> FEATURE:  
266 <223> OTHER INFORMATION: Protease cleavage site  
268 <400> SEQUENCE: 16  
269 Leu Glu Val Leu Phe Gln Gly Pro  
270 1 5  
272 <210> SEQ ID NO: 17  
273 <211> LENGTH: 5  
274 <212> TYPE: PRT  
275 <213> ORGANISM: Clostridium species  
277 <220> FEATURE:  
278 <221> NAME/KEY: ZN\_FING  
279 <222> LOCATION: (1)...(5)  
280 <223> OTHER INFORMATION: Xaa=any amino acid  
282 <400> SEQUENCE: 17  
W--> 283 His Glu Xaa Xaa His  
284 1 5  
286 <210> SEQ ID NO: 18  
287 <211> LENGTH: 51  
288 <212> TYPE: DNA  
289 <213> ORGANISM: Artificial Sequence  
291 <220> FEATURE:  
292 <223> OTHER INFORMATION: Linker  
294 <400> SEQUENCE: 18  
295 ggagaaaaagc tttacgacga tgacgataag gatcgatggg gatcctctag a 51  
297 <210> SEQ ID NO: 19  
298 <211> LENGTH: 22  
299 <212> TYPE: PRT  
300 <213> ORGANISM: Artificial Sequence  
302 <220> FEATURE:  
303 <223> OTHER INFORMATION: Linker

Input Set : A:\17311SEQLIST1-4-02.TXT  
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Please Note:

Use of n and/or Xaa have been detected in the Sequence Listing. Please review the Sequence Listing to ensure that a corresponding explanation is presented in the <220> to <223> fields of each sequence which presents at least one n or Xaa.

Seq#:17; Xaa Pos. 3,4  
Seq#:22; Xaa Pos. 2,3  
Seq#:23; Xaa Pos. 2,3,5